

WHAT IS CLAIMED IS:

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1. An apparatus for dividing, compressing and transmitting video data that uses a plurality of channels for transmission, at least comprising:

5        a first encoding section for encoding an original picture and transmitting it with a first channel;

10      a first compensation section for generating a first compensated original picture obtained by adding and subtracting to/from said original picture a value obtained by dispersing an encoding error occurred in said first encoding section to the remaining channels; and

15      a second encoding section for encoding said first compensated original picture and transmitting it through a second channel.

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2. An apparatus for dividing, compressing and transmitting video data according to claim 1, wherein when said first compensated original picture is designated as 20  $S(2)$ , said  $S(2)$  is expressed by the following expression (3);

$$S(2) = \{(S(1) - C(1)} / (N-1) + S(1) ... (3)$$

wherein  $S(1)$  denotes an original picture,  $C(1)$  denotes decoded data, and  $N$  denotes the total number of channels.

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3. An apparatus for dividing, compressing and transmitting video data according to claim 1, further comprising:

an i-th ( $i = 2, 3, \dots, N-1$ ) compensation section for  
5 generating an i-th compensated original picture obtained  
by adding and subtracting to/from said original picture a  
value obtained by dispersing an encoding error occurred in  
an i-th encoding section to the remaining channels; and  
an ( $i+1$ )-th encoding section for encoding said i-th  
10 compensated original picture and transmitting it through  
an ( $i+1$ )-th channel.

4. An apparatus for dividing, compressing and  
15 transmitting video data according to claim 3, wherein when  
said i-th compensated original picture is designated as  $S(i+1)$ , said  $S(i+1)$  is expressed by the following expression  
20 (4);

$$S(i+1) = [ S(1) \times i - \sum_{k=1}^i C(k) ] / (N-i) + S(1) \quad \dots (4)$$

wherein  $S(1)$  denotes an original picture,  $C(k)$  denotes  
decoded data, and  $N$  denotes the total number of channels.